Permanent Pastures

Are Profitable

A GOOD permanent pasture is one of the most important of all farm crops. While conserving and improving soil productivity, it furnishes, at lowest cost, succulent feed rich in proteins, minerals and vitamins. On many farms a good permanent pasture often returns a greater net profit than any other crop. It therefore deserves to be planted on good land and receive careful attention. In establishing permanent pastures, mixtures of grasses and legumes are desirable for the following reasons:

1. Different soil conditions may exist in the same field. A mixture assures a more uniform stand and higher production because in a mixture there are varieties adapted to the various soil conditions.
2. Grasses and Clovers differ in their periods of greatest productivity as well as in their rest or dormant periods, and a mixture provides for more uniform growth throughout the season.
3. A combination, preferably of grasses and legumes, provides better balanced feed because the legumes are richer in proteins and minerals than are the grasses.
4. There is a great deal of difference in the time necessary to establish different legumes and grasses for heavy pasturing. A mixture containing quick growing grasses and legumes provides early grazing and also protects the more permanent grasses and legumes while becoming established.

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Some of the More Valuable and Their Relat

GRASSES

KENTUCKY BLUE GRASS (Long Lived)

An ideal permanent pasture grass that does well under the same soil and moisture conditions as Corn. Unfortunately, it usually rests or becomes dormant through July and August.

BROMUS INERMIS (Long Lived)

Probably the most valuable of all pasture grasses where it can be grown. It probably produces more grazing than any other grass. It produces early and late and is particularly valuable through July and August when Blue Grass is dormant. Particularly valuable in combination with Alfalfa. It usually takes several years to become established.

RED TOP (Long Lived)

Is adapted to more varied conditions than any other grass. It will grow on poor and good soils, even on land so poor in lime that most other grasses fail. It is particularly suited to wet lands but is at the same time strongly drouth resistant.

REED CANARY GRASS (Long Lived)

One of the most valuable pasture grasses, but is particularly adapted to land where the water table is near the surface of the soil all the time and above the surface part of the time. Especially adapted to peat or muck soils.

TIMOTHY (Usually lasts 2 to 3 yrs.)

A very palatable pasture grass. Quick growing and particularly valuable as a starter while some of the other slower starting grasses are becoming established. Timothy thrives on a moderately acid soil.

MEADOW FESCUE (Usually lasts 4 to 5 yrs.)

A valuable pasture grass adapted for rich, moist and even wet soil, as well as shady places, but not for sandy land.

CRESTED WHEAT GRASS (Long Lived)

A hardy drouth resistant perennial grass particularly valuable where moisture supplies are insufficient for Bromus.

asture Legumes and Grasses ve Adaptability

LEGUMES

ALFALFA (Long Lived)

The best long lived legume for pastures where the soil is not sour or too wet. Should not be pastured too close, particularly late in the fall.

SWEET CLOVER (Biennial; 2 yrs.)

The standard biennial pasture legume for sweet soil; exceptionally valuable for heavy pasture production and for soil improvement.

RED CLOVER (Biennial; 2 yrs.)

Exceptionally valuable for short pasture rotations on clay and dark loam soil.

ALSIKE CLOVER (Reseeds; usually long lived)

An excellent legume for long life pastures; particularly adapted to low land; will grow on soil too acid for Red Clover.

WHITE DUTCH CLOVER (Reseeds; long lived)

A most valuable legume for long life pastures; particularly adapted where moisture is abundant, and in combination with Kentucky Blue Grass.

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Although the danger of bloat from Alfalfa and Clovers is not so great when used in combination with grasses, the usual precautions should be taken when the animals are first turned into the pasture. Likewise, care should be taken to avoid over-grazing of legumes, particularly early in the spring and late in the fall.

When alfalfa is used and soils are acid, sufficient lime should be applied. It is always advisable to inoculate the legumes or the mixture.

Grass Combinations for Permanent Pastures

In planning a permanent pasture, it is necessary to consider both soil and moisture conditions, as well as the proposed length of the life of the pasture. Certain general rules should be kept in mind.

For long lived pastures—that is, over three years—the base grasses should be Blue Grass, Bromus, Red Top, or Crested Wheat Grass, and the predominant legume should be Alfalfa. Wherever soil conditions are favorable for Bromus and Alfalfa there is no better combination. It is not worth while using Bromus or Kentucky Blue Grass, or Crested Wheat Grass in a mixture for pastures to remain less than three years, as these grasses take too long to become established. Likewise, they should not be used except on soils where they will do well.

There are no standard combinations to be recommended for all conditions, and in many cases it is advisable to consult the local County Agricultural Agent or the State Experimental Station. However, the following combinations have been found to be quite satisfactory for conditions as indicated:

No. 1

Alfalfa, 8 lbs.
Brome, 7 lbs.

A very satisfactory combination for a long lived pasture, but care should be taken not to pasture heavily until well established. Particularly adapted to sandy soil.

No. 2

Alfalfa, 7 lbs.
Red Clover, 3 lbs.
Bromus, 8 lbs.

A long lived Bromus and Alfalfa pasture. Very satisfactory Bromus and Alfalfa combination for heavy soils.

No. 3

Timothy, 2 lbs.
Brome Grass, 6 lbs.
Kentucky Blue Grass, 2 lbs.
Medium Red Clover, 4 lbs.
Alsike Clover, 2 lbs.
White Clover, 1 lb.

A long lived Bromus, Kentucky Blue Grass and White Clover pasture suitable for good sandy soils.

No. 4

Timothy or Meadow Fescue, 6 lbs.
Kentucky Blue Grass, 2 lbs.
Medium Red Clover, 4 lbs.
Alsike Clover, 2 lbs.
White Clover, 1 lb.

A satisfactory mixture for long lived Blue Grass and White Clover pasture on good soil which is adapted to Red Clover.

Grass Combinations for Permanent Pastures

No. 5

Brome Grass, 6 lbs.
Crested Wheat Grass, 4 lbs.
Alfalfa, 5 lbs.
Sweet Clover, 4 lbs.

A good combination for a long lived pasture in a territory of limited rainfall.

No. 6

Timothy or Meadow Fescue, 8 lbs.
Medium Red Clover, 4 lbs.
Alsike Clover, 2 lbs.

Inexpensive mixture well suited to short rotation.

No. 7

Sweet Clover, 12 lbs.
Timothy or Meadow Fescue, 6 lbs.

Inexpensive mixture well suited to short rotation.

No. 8

Reed Canary Grass, 6 lbs.

Especially recommended as a permanent pasture for peat and muck soils.

No. 9

Timothy or Meadow Fescue, 6 lbs.
Alsike, 4 lbs.
Kentucky Blue Grass, 8 lbs.

A good permanent mixture for moist muck soils.

No. 10

Alsike, 3 lbs.
Red Clover, 1 lb.
Kentucky Blue Grass, 6 lbs.
Timothy, 5 lbs.
Red Top, 4 lbs.

A good mixture for slightly sour soil.

No. 11

Alsike, 4 lbs.
Alfalfa, 4 lbs.
Sweet Clover, 4 lbs.
Red Top, 5 lbs.

A good mixture for sandy soils.

No. 12

Timothy or Meadow Fescue, 5 lbs.
Red Clover, 3 lbs.
Sweet Clover, 3 lbs.
Kentucky Blue Grass, 5 lbs.

A long lived pasture for soils average or above average in fertility.

No. 13

Timothy, 5 lbs.
Alsike, 3 lbs.
Red Top, 4 lbs.
Kentucky Blue Grass, 4 lbs.

A recommended mixture for soils below average fertility and slightly acid.

Seeding and Cultivation of Permanent Pastures

PASTURES can be seeded either in the spring or fall, depending on seasonal conditions, but fall seeding should be early enough to permit the legumes to make a satisfactory root growth before going into the winter. A moist, fine, thoroughly compact seed bed relatively free from weeds is essential. The seeding rate will vary from 15 to 20 pounds per acre, depending upon the combination. Mixtures containing Red Top, White Clover, and Alsike require fewer pounds per acre.

The seeding should be shallow, never over ¼ to ½ inch, except possibly in sandy soil. The use of a roller or cultipacker both before and after seeding is desirable. Seeding of the small seeded grasses and legumes can be done with a grass seed attachment on a grain drill, or with a broadcast seeder. Where drilled, Bromus must be seeded separately. It can be broadcast, although drilling is to be preferred and the use of a peck or two of Oats per acre with the Brome will help the feeding through the drill. When Oats are used, however, they should never be allowed to mature, but should be cut and removed early. If weeds are prevalent while the pasture is becoming established, they should be kept cut.

Special leaflets covering Bromus, Reed Canary Grass, Sweet Clover, Alfalfa, and Crested Wheat Grass may be had from your dealer or from Northrup, King & Company, Minneapolis, Minn.